

SEQ ID NO	Sequence
1	Ac-HSDAVFTDQYTRLRKQVAACKYLQSIKQKRY
2	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKRY
3	Ac-HSDAVFTDQYTRLRKQVAACKYLQSIKQK
4	Ac-HTEAVFTDQYTRLRKQVAACKYLQSIKQKRY
5	Ac-HSDAVFTDQYTRLRKQLAVKKYLQDIKQGGT
6	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKR
7	Ac-HSDAVFTDQYTRLRKQLAACKYLQTIKQKRY
8	Ac-HSDAVFTDQYTRLRKQMAACKYLQTIKQKRY
9	Ac-HSDAVFTDQYTRLRKQMAAHKYLQSIKQKRY
10	Ac-HSDAVFTDQYTRLRKQMAAKHYLQSIKQKRY
11	Ac-HSDAVFTDQYTRLRKQMAKKYLQSIKQKR
12	Ac-HSDAVFTDQYTRLRKQMAKKYLQSIKQKR
13	Ac-HSDAVFTDQYTRLRKQMARKKYLQSIKQKR
14	Ac-HSDAVFTDQYTRLRKQMASKKYLQSIKQKR
15	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKR
16	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKR
17	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKR
18	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQRR
19	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKA
20	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKF
21	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKH
22	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKI
23	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKK
24	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKL
25	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKM
26	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKP
27	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKQ
28	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKS
29	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKT
30	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKV
31	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKW
32	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKY
33	Ac-HSDAVFTDQYTRLRKQMAKKYLQSIQORI
34	Ac-HSDAVFTDQYTRLRKQMAKKYLQSIQORI
35	Ac-HSDAVFTDQYTRLRKQMASKKYLQSIQORI
36	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQORI
37	Ac-HSDAVFTDQYTRLRKQMASKKYLQSIQORI

FIG. 1a

SEQ ID NO	Sequence
38	Ac-HSDAVFTDNYTRLRKQVAACKYLQSIKQKRY
39	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIKQKRY
40	Ac-HSDAVFTDNYTRLRKQVAACKYLQSIKQK
41	Ac-HTEAVFTDNYTRLRKQVAACKYLQSIKQKRY
42	Ac-HSDAVFTDNYTRLRKQLAVKKYLQDIKQGGT
43	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIKQKR
44	Ac-HSDAVFTDNYTRLRKQLAAKKYLQTIKQKRY
45	Ac-HSDAVFTDNYTRLRKQMAACKYLQTIKQKRY
46	Ac-HSDAVFTDNYTRLRKQMAAHKKYLQSIKQKRY
47	Ac-HSDAVFTDNYTRLRKQMAACKHYLQSIKQKRY
48	Ac-HSDAVFTDNYTRLRKQMAGKKYLQSIKQKR
49	Ac-HSDAVFTDNYTRLRKQMAKKKKYLQSIKQKR
50	Ac-HSDAVFTDNYTRLRKQMARKKKYLQSIKQKR
51	Ac-HSDAVFTDNYTRLRKQMASKKKYLQSIKQKR
52	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIPOKR
53	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIQOKR
54	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIROKR
55	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIKQRR
56	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIKQKA
57	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIKQKF
58	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIKQKH
59	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIKQKI
60	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIKQKK
61	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIKQKL
62	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIKQKM
63	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIKQKP
64	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIKQKQ
65	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIKQKS
66	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIKQKT
67	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIKQKV
68	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIKQKW
69	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIKQKY
70	Ac-HSDAVFTDNYTRLRKQMAGKKYLQSIKQRI
71	Ac-HSDAVFTDNYTRLRKQMAKKKKYLQSIKQRI
72	Ac-HSDAVFTDNYTRLRKQMASKKKYLQSIKQRI
73	Ac-HSDAVFTDNYTRLRKQMAACKYLQSIPORI
74	Ac-HSDAVFTDNYTRLRKQMASKKKYLQSIRORI

FIG. 1b

SEQ ID NO	Sequence
75	Ac-HSDAVFTDQYTRLRKQVAAKKYLQSIKNKRY
76	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKRY
77	Ac-HSDAVFTDQYTRLRKQVAAKKYLQSIKNK
78	Ac-HTEAVFTDQYTRLRKQVAAKKYLQSIKNKRY
79	Ac-HSDAVFTDQYTRLRKQLAVKKYLQDIKNGGT
80	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKR
81	Ac-HSDAVFTDQYTRLRKQLAAKKYLQTIKNKRY
82	Ac-HSDAVFTDQYTRLRKQMAAKKYLQTIKNKRY
83	Ac-HSDAVFTDQYTRLRKQMAAHKKYLQSIKNKRY
84	Ac-HSDAVFTDQYTRLRKQMAAKHYLQSIKNKRY
85	Ac-HSDAVFTDQYTRLRKQMAGKKYLQSIKNKR
86	Ac-HSDAVFTDQYTRLRKQMAKKKYLQSIKNKR
87	Ac-HSDAVFTDQYTRLRKQMARKKYLQSIKNKR
88	Ac-HSDAVFTDQYTRLRKQMASKKYLQSIKNKR
89	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSI PNKR
90	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIQNKR
91	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSI RNKR
92	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNRR
93	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKA
94	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKF
95	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKH
96	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKI
97	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKK
98	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKL
99	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKM
100	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKP
101	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKQ
102	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKS
103	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKT
104	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKV
105	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKW
106	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKY
107	Ac-HSDAVFTDQYTRLRKQMAGKKYLQSIKNRI
108	Ac-HSDAVFTDQYTRLRKQMAKKKYLQSIKNRI
109	Ac-HSDAVFTDQYTRLRKQMASKKYLQSIKNRI
110	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSI PNRI
111	Ac-HSDAVFTDQYTRLRKQMASKKYLQSI RNRI

FIG. 1c

SEQ ID NO	Sequence
112	Ac-HSDAVFTDQYTRLRKQVAACKYLQSIKQKRYC-PEG
113	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKRYC-PEG
114	Ac-HSDAVFTDQYTRLRKQVAACKYLQSIKQKRC-PEG
115	Ac-HTEAVFTDQYTRLRKQVAACKYLQSIKQKRYC-PEG
116	Ac-HSDAVFTDQYTRLRKQLAVKKYLQDIKQGGTC-PEG
117	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKRC-PEG
118	Ac-HSDAVFTDQYTRLRKQLAAKKYLQTIKQKRYC-PEG
119	Ac-HSDAVFTDQYTRLRKQMAACKYLQTIKQKRYC-PEG
120	Ac-HSDAVFTDQYTRLRKQMAAHKKYLQSIKQKRYC-PEG
121	Ac-HSDAVFTDQYTRLRKQMAAKHYLQSIKQKRYC-PEG
122	Ac-HSDAVFTDQYTRLRKQMAGKKYLQSIKQKRC-PEG
123	Ac-HSDAVFTDQYTRLRKQMAKKKKYLQSIKQKRC-PEG
124	Ac-HSDAVFTDQYTRLRKQMARKKYLQSIKQKRC-PEG
125	Ac-HSDAVFTDQYTRLRKQMASKKYLQSIKQKRC-PEG
126	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
127	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
128	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
129	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
130	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
131	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
132	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
133	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
134	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
135	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
136	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
137	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
138	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
139	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
140	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
141	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
142	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
143	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
144	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
145	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
146	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
147	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG
148	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQKRC-PEG

FIG. 1d

SEQ ID NO	Sequence
149	HSDGIFTDSYSRYRKQMAVKKYLA AVL GKRYKQ RVKNK (PACAP38)
150	HSDGIFTDSYSRYRKQMAVKKYLA AVL (PACAP27)
151	HSDAVFTDNYTRLRKQMAVKKYLNSILN (VIP)
152	HSDAVFTDQYTRLRKQVA AKKYLSIKQKRY
153	Ac-HTDAVFTDQYTRLRKQVA AKKYLSIKQKRY
154	HSDAVFTDQYTRLRKQVA AKKYLSIKQKRYC-PEG
155	Ac-HTDAVFTDQYTRLRKQVA AKKYLSIKQKRYC-PEG

FIG. 1e

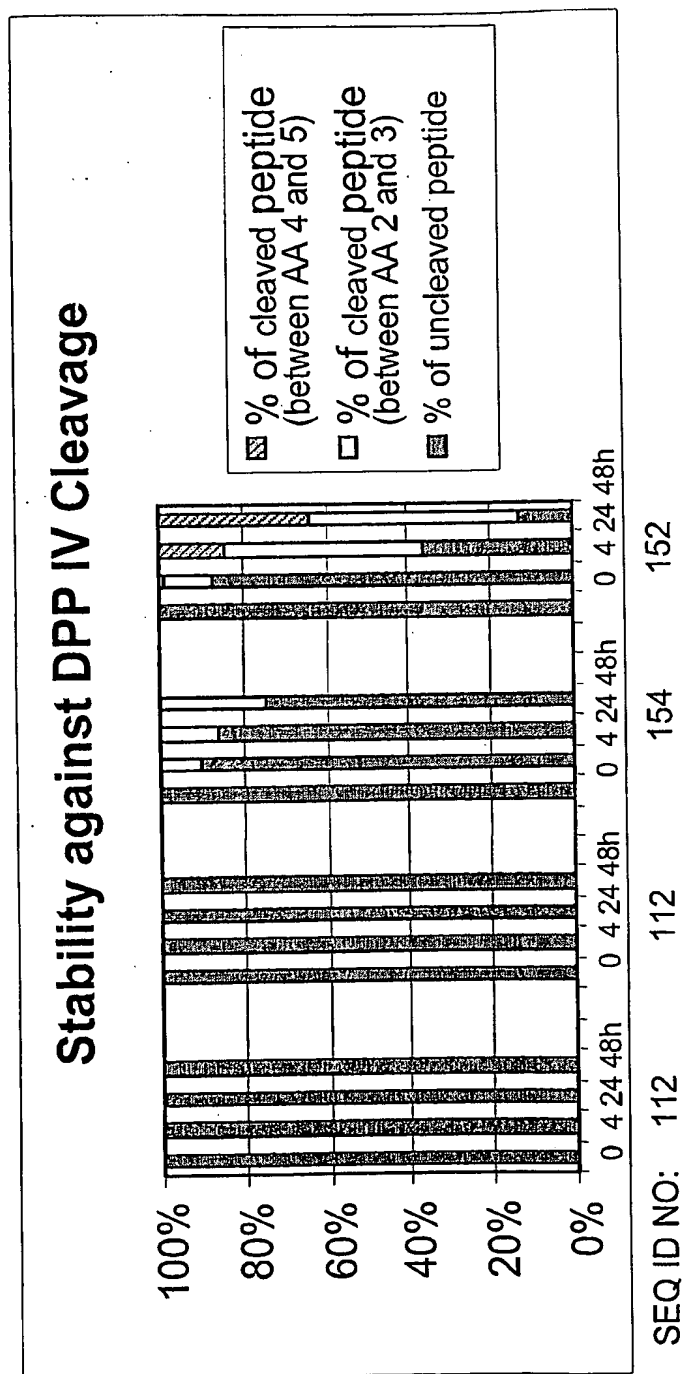
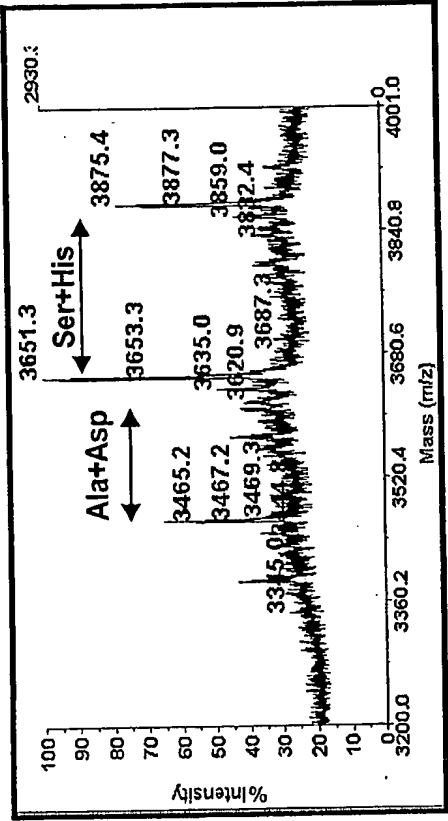
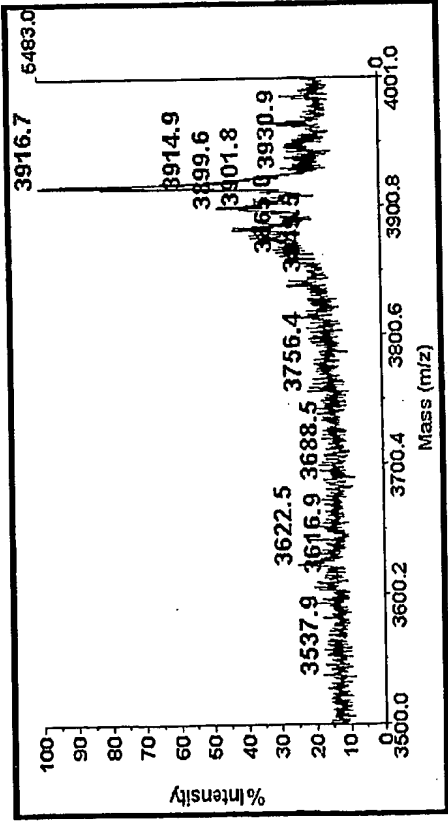


Figure 2a



SEQ ID NO: 152 is
cleaved by DPPIV



SEQ ID NO: 1 is not
cleaved by DPPIV

Figure 2b

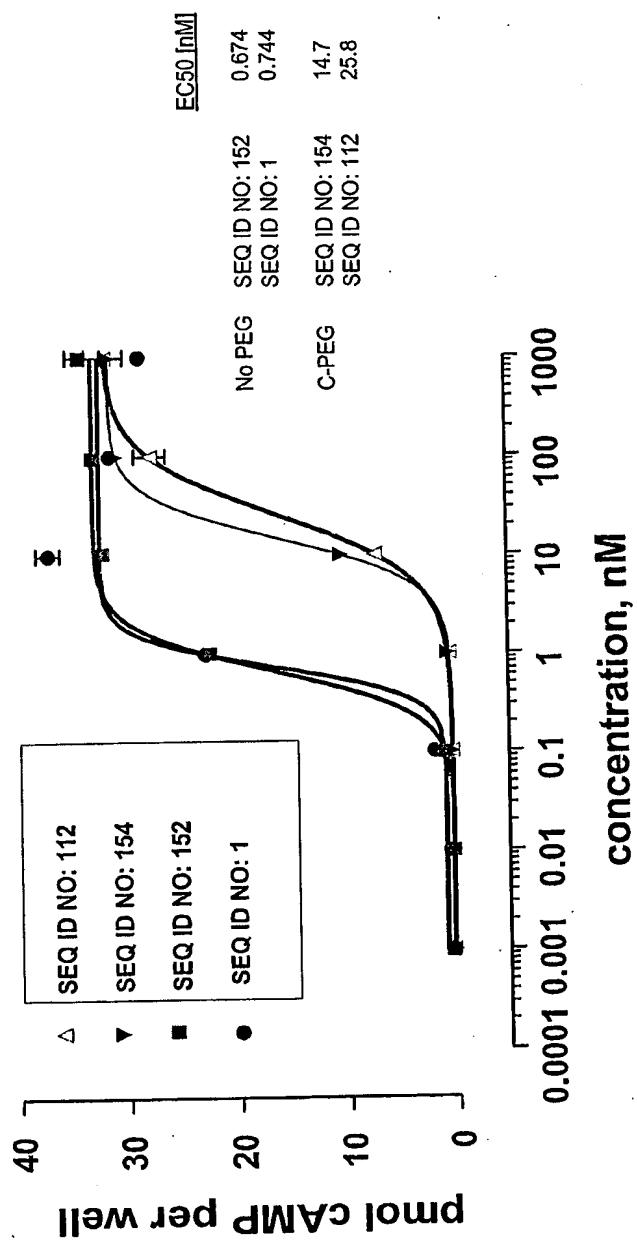


Figure 3

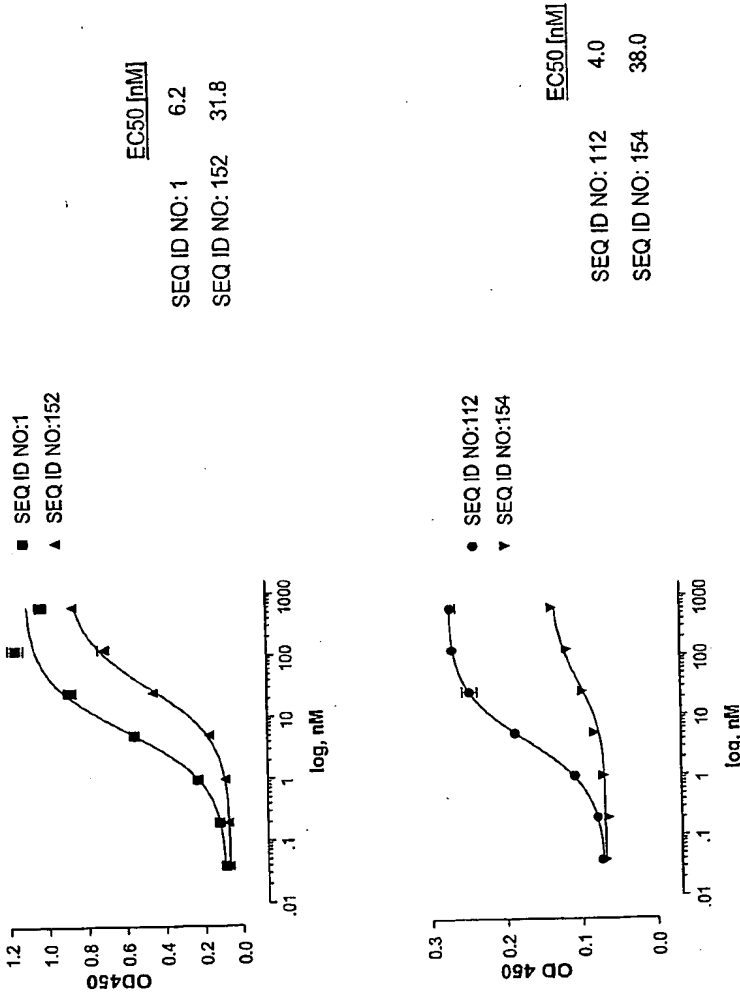


Figure 4a

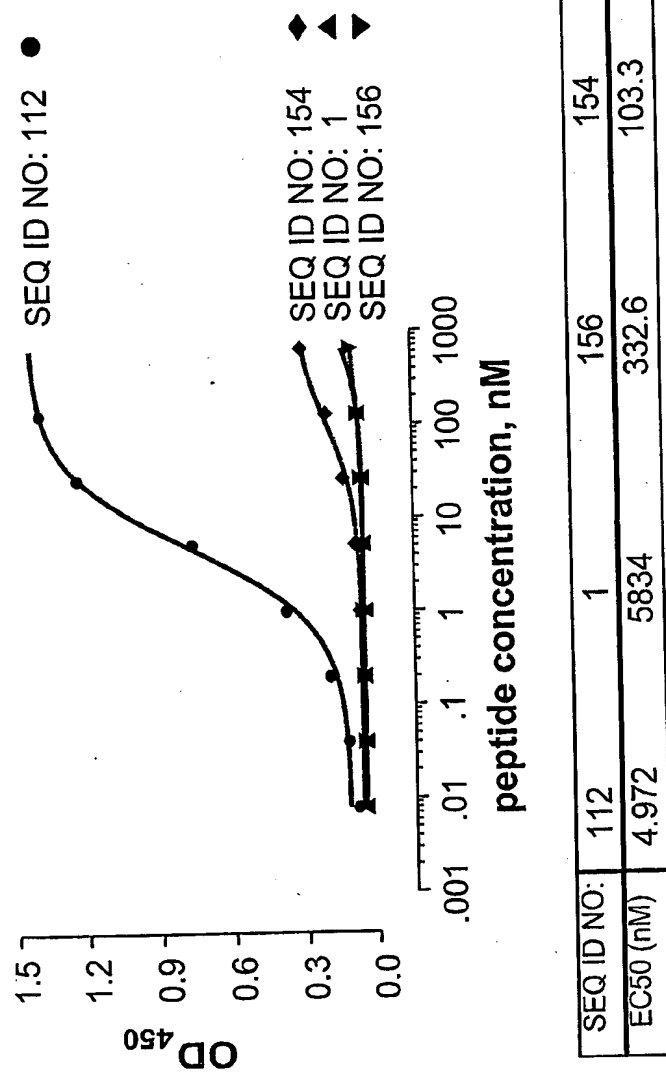
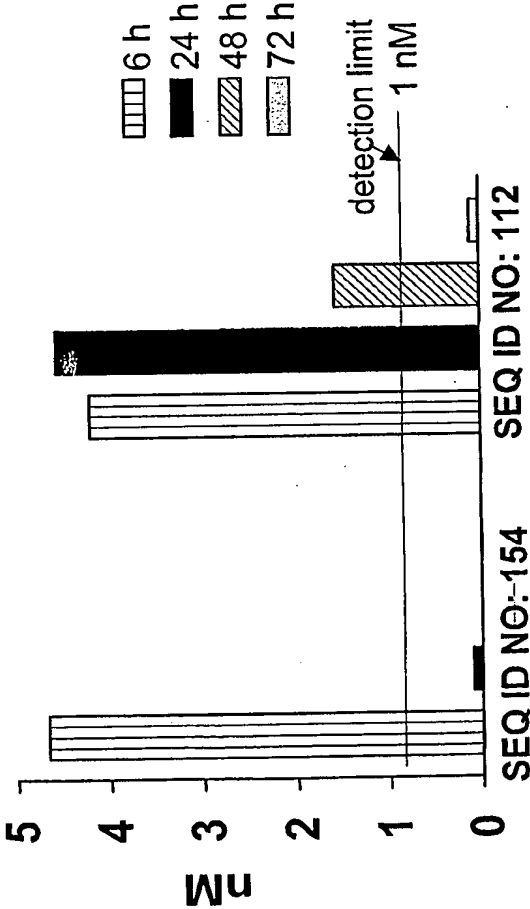


Figure 4b



	6 hrs	24 hrs	48 hrs	72 hrs
SEQ ID NO: 154	4.66 ± 0.43	< 1	< 1	< 1
SEQ ID NO: 112	4.21 ± 0.25	4.57 ± 0.37	1.56 ± 0.12	< 1

Figure 5a

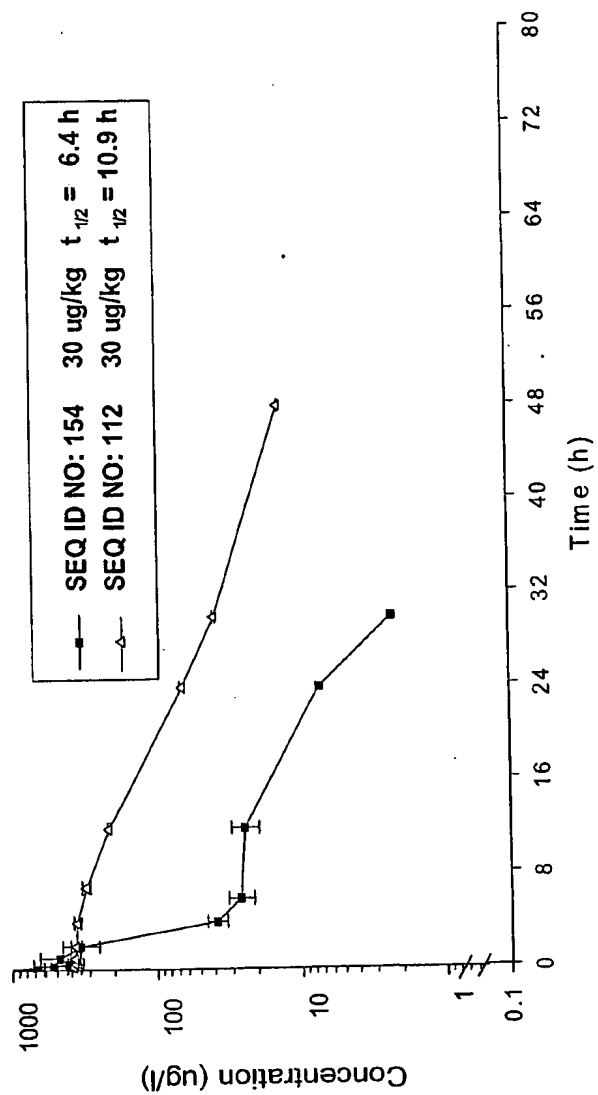


Figure 5b

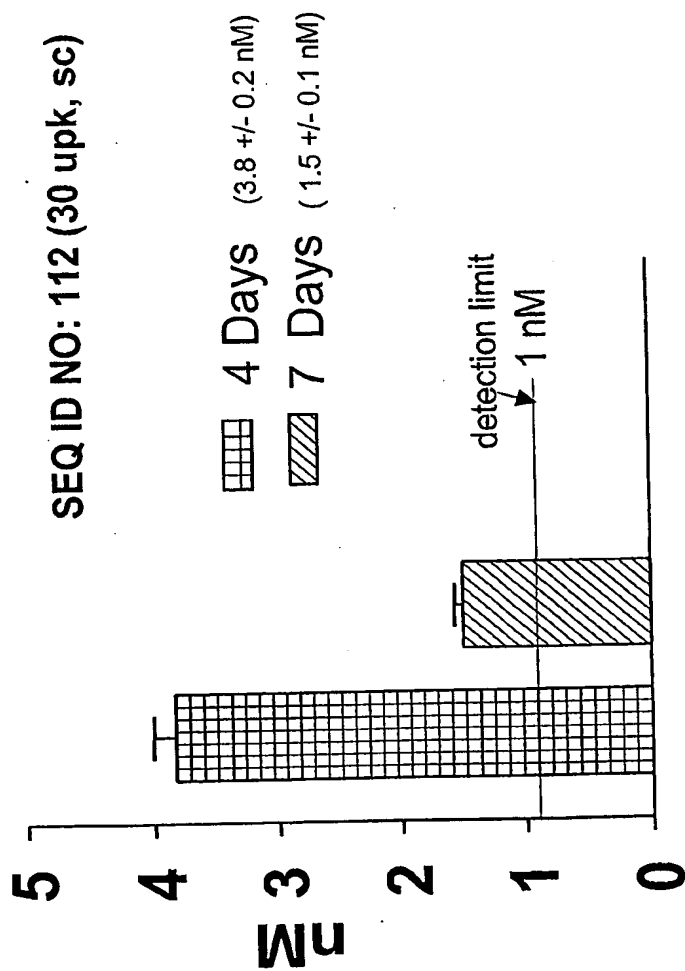


Figure 5c

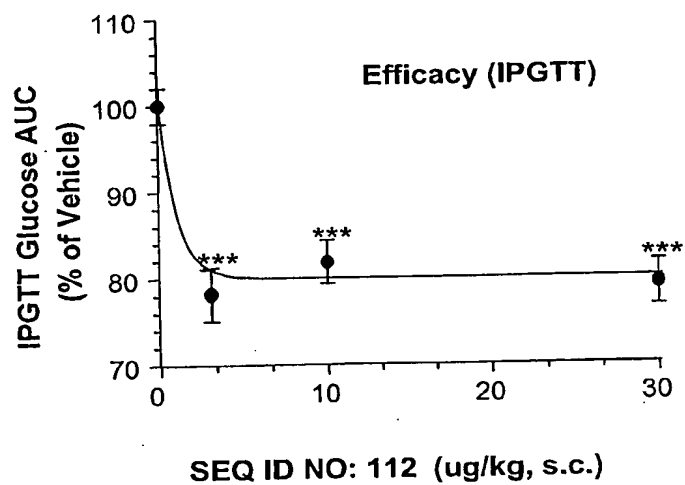
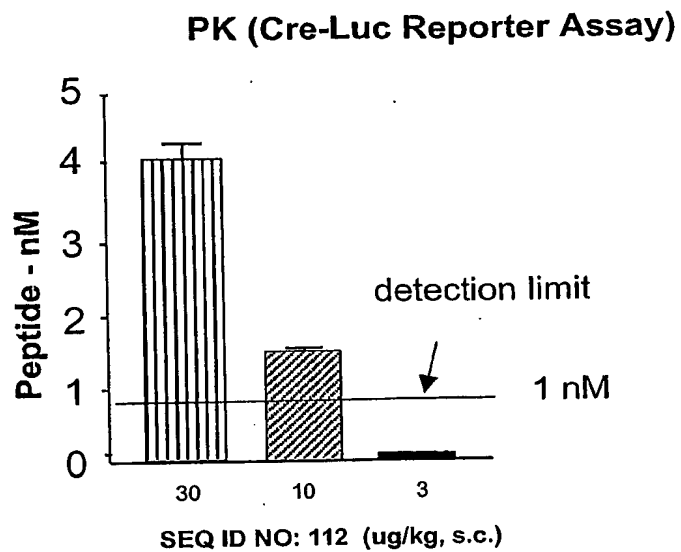
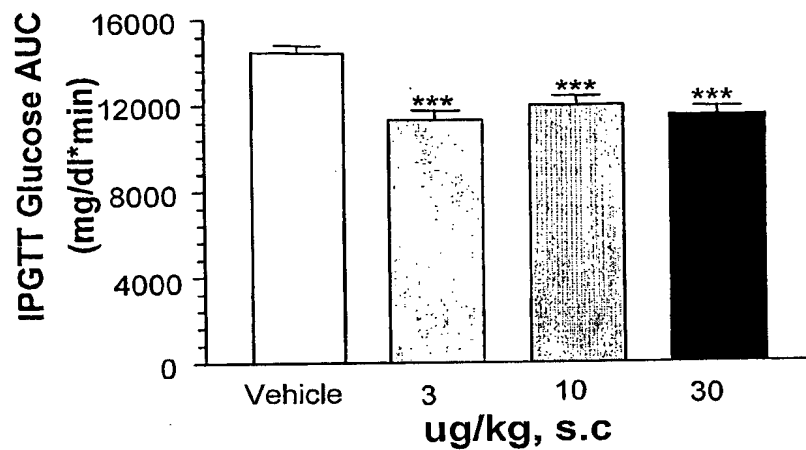
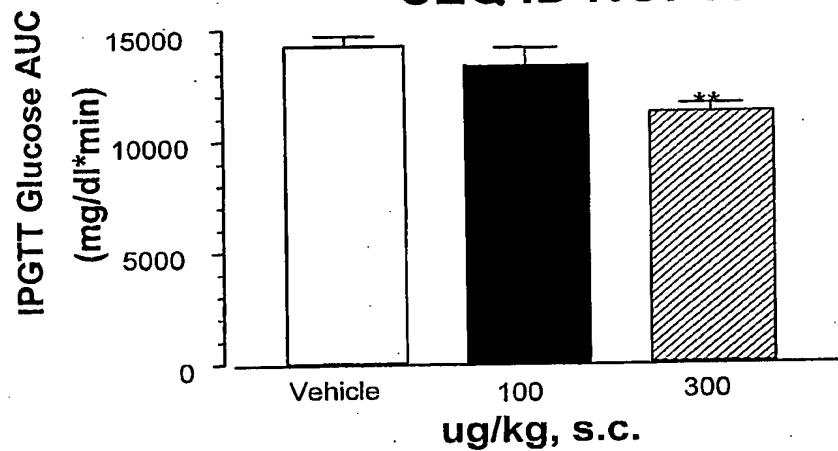


Figure 6a

SEQ ID NO: 112**SEQ ID NO: 154****Figure 6b**

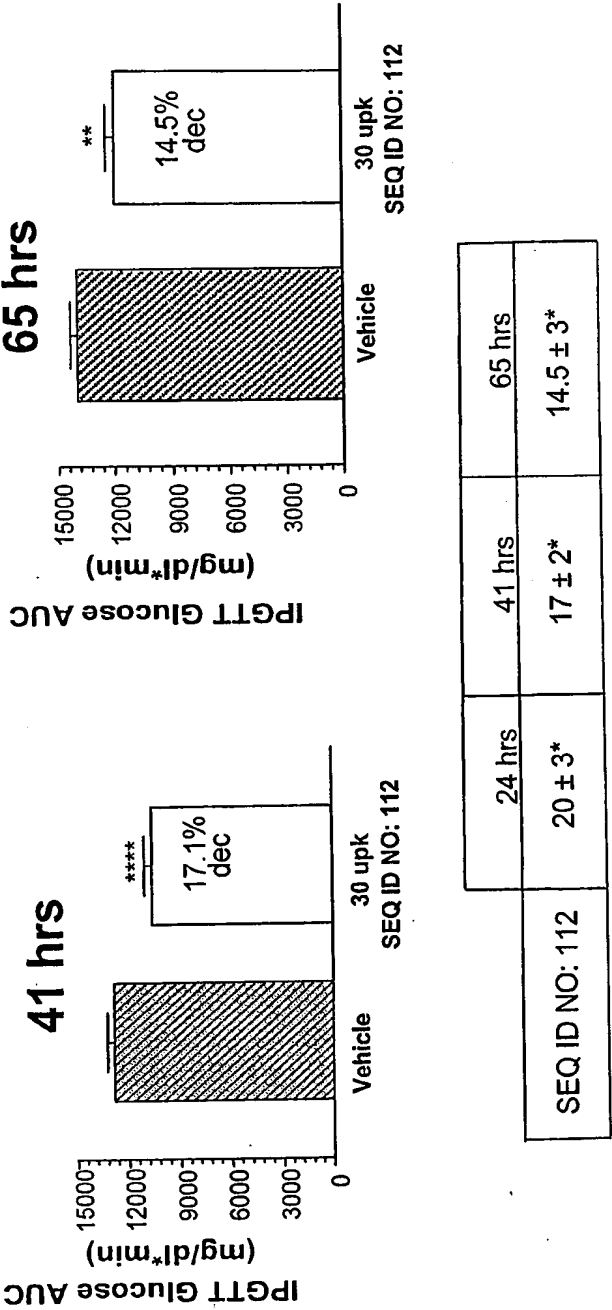


Figure 6c

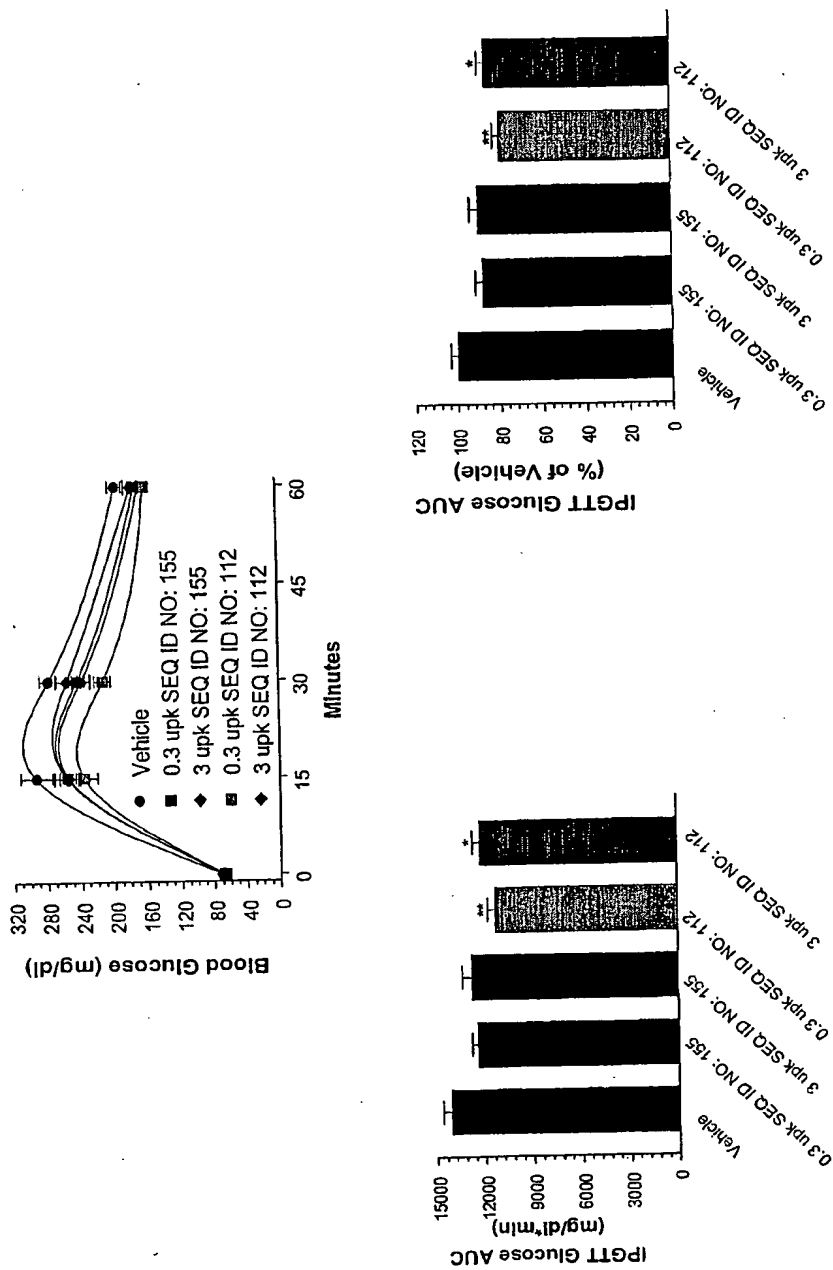


Figure 6d